

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of performing a two stage anneal in the formation of a conductive line, the method comprising:
 - forming a trench in a dielectric layer;
 - providing a seed layer in the trench;
 - providing a copper material in the trench;
 - annealing the copper material at a low temperature for a long period of time, the long period of time being greater than 8 hours; and
 - subsequently annealing at a higher temperature than the low temperature and for a shorter period of time than the long period of time the copper material to distribute at least one alloy element.
2. (Original) The method of claim 1, further comprising providing a barrier layer along lateral side walls of the trench, the barrier layer being disposed between the seed layer and the dielectric layer.
3. (Previously Presented) The method of claim 2, wherein the barrier layer is tantalum (Ta), titanium nitride (TiN), titanium silicon nitride (TiSiN) or tungsten nitride (WN_x).
4. (Previously Presented) The method of claim 1, wherein the low temperature is less than 100°C.
5. (Original) The method of claim 4, wherein the long period of time is between approximately 8 and 24 hours.
6. (Original) The method of claim 1, wherein the higher temperature is in a range from 250°C to 350°C.

7. (Original) The method of claim 1, wherein the low temperature is 80°C or less.

8. (Previously Presented) A method of forming a copper structure in an integrated circuit fabrication process, the method comprising:

providing a copper seed layer;
electroplating the seed layer to provide copper material;
providing a first anneal to form large grain sizes in the copper material, the large grain sizes being between approximately 2,500 and 10,000 angstroms; and
providing a second anneal to distribute alloy elements uniformly in the copper material.

9. (Original) The method of claim 8, wherein the first anneal causes grain growth in the copper material.

10. (Original) The method of claim 8, wherein the second anneal is performed at a higher temperature than the first anneal.

11. (Currently Amended) The method of claim 8, wherein the alloy elements include at least one element selected from the group consisting of tin (Sn), calcium (Ca), chromium (Cr), zinc (Zn), zirconium (Zr), hafnium (Hf), and lanthanum (La).

12. (Original) The method of claim 8, further comprising:

providing the alloy elements in a layer above the copper material.

13. (Original) The method of claim 8, wherein the alloy elements are included in the seed layer.

14. (Original) The method of claim 13, further comprising providing additional alloy elements in a layer above the copper material.

15. (Previously Presented) The method of claim 8, wherein the first anneal occurs at a temperature less than 100°C.

16. (Previously Presented) A method of forming a damascene conductive structure in an integrated circuit, the method comprising:

- providing a copper layer;
- providing a source of at least one alloy element;
- first annealing the copper layer to cause grain growth over a long period of time, the long period of time being greater than 8 hours; and
- second annealing the copper layer to distribute the at least one alloy element in the copper layer.

17. (Previously Presented) The method of claim 16, wherein the first annealing occurs at temperatures of less than 100°C.

18. (Original) The method of claim 16, wherein the second annealing is performed after the first annealing.

19. (Original) The method of claim 17, wherein the second annealing is performed at temperatures over 250°C and for a time of less than 1 hour.

20. (Currently Amended) The method of claim [[15]] 16, wherein the at least one alloy elements include element includes at least one element selected from the group consisting of zirconium (Zr), hafnium (Hf), and lanthanum (La).